AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-24. (Canceled)

25. (Currently amended) A method for transmitting useful data in a cycle-based communication system between users of the system via a data bus, to which the users are connected, having method steps of:

transmitting the useful data within cyclically repeating timeframes each with at least two timeslots, and in each timeslot transmitting one message;

storing at least some of the useful data in memory in [[a]] **the** message, and assigning each message an identifier;

transmitting the messages in timeslots of fixed length;

storing the identifier in memory in the message as part of the message;

in each message, storing data about a cycle are stored in memory;

in at least one of the timeslots of a timeframe, transmitting different messages offset from one another in various cycles, and in the at least one timeslot, transmitting those messages that are not intended for transmission in every cycle offset from one another;

using either additional cycle data integrated with the identifier, or using a separate cycle counter integrated in the message;

preventing messages transmitted over the communication system whose identifier matches a predetermined identifier but which are of no interest to the user according to the data about the cycle contained in the message, from being loaded into the user,

wherein data pertaining to a current cycle are additionally stored in memory in each message; that the messages transmitted over the data bus in the timeslots of the timeframes are observed by the users of the communication system; that either the identifiers or the data pertaining to the current cycle of the messages are compared with predeterminable values respectively, stored in memories of the observing users, for the identifier and the data pertaining to the current cycle, and at least the useful data of a transmitted message are received by the user only if the identifier and the data pertaining to the current cycle of the message match the predeterminable values, stored in the memory of the user, for the identifier and the data pertaining to the current cycle.

26. (Currently amended) A method for transmitting useful data in a cycle-based communication system between users of the system via a data bus, to which the users are connected, having method steps of:

transmitting the useful data within cyclically repeating timeframes each with at least two timeslots, and in each timeslot transmitting one message;

storing at least some of the useful data in memory in [[a]] **the** message, and assigning each message an identifier;

transmitting the messages in timeslots of fixed length; storing the identifier in memory in the message as part of the message; in each message, storing data about a cycle are stored in memory;

in at least one of the timeslots of a timeframe, transmitting different messages offset from one another in various cycles, and in the at least one timeslot, transmitting those messages that are not intended for transmission in every cycle offset from one another;

using either additional cycle data integrated with the identifier, or using a separate cycle counter integrated in the message;

additionally assigning each message time data that pertain to a timeslot and that can be learned from the identifier; and

preventing messages transmitted over the communication system whose identifier matches a predetermined identifier but which are of no interest to the user according to the data about the cycle contained in the message, from being loaded into the user,

wherein the users of the communication system are each allocated at least one predeterminable timeslot of the timeframes for data transmission; that data pertaining to a current cycle are additionally stored in memory in each message; that the messages transmitted over the data bus in the timeslots of the timeframes are observed by the users of the communication system; that either the identifiers or the data pertaining to the current cycle of the messages are compared with predeterminable values respectively, stored in memories of the observing users, for the identifier and the data pertaining to the current cycle, and at least the useful data of a transmitted message are received by the user only if the identifier and the data pertaining to the current cycle of the message match the predeterminable values, stored in the memory of the user, for the identifier and the data pertaining to the current cycle.

Claims 27-29. (Canceled)

Appl. No. 10/500,657

Amdt. dated October 25, 2010

Reply to Final Office action of August 3, 2010

30. (Currently amended) The transmission method of claim 25, wherein data traffic on the data bus of the communication system is observed; current cycle data are monitored by the users; and a message is sent by [[a]] the user in a predeterminable timeslot only if the current cycle data match a predeterminable value, stored in a memory of the user, for the data pertaining to the current cycle.

31. (Currently amended) The transmission method of claim 26, wherein data traffic on the data bus of the communication system is observed; current cycle data are monitored by the users; and a message is sent by [[a]] **the** user in a predeterminable timeslot only if the current cycle data match a predeterminable value, stored in a memory of the user, for the data pertaining to the current cycle.

Claims 32-34. (Canceled)